

REMARKS

Claims 1-9 and 13-23 are pending and at issue in this application, with claims 1, 21 and 23 being independent claims. Applicants respectfully request reconsideration and favorable action in this case.

35 U.S.C. § 102 Rejections

Claims 1-23 stand rejected under 35 U.S.C. §102(b) as anticipated by Schwenke et al. (U.S. Patent No. 6,556,950, hereinafter "Schwenke"). Applicants respectfully traverse this rejection. Independent claim 1 generally recites, in part, representing a circuit diagram that displays, at least for an element of the system, an electrical connection of the element to other individual elements in the system, and representing status data for the element in the represented circuit diagram.

Schwenke cannot anticipate independent claim 1 because Schwenke does not disclose all of the elements of the claim and, in particular, fails to disclose (1) a represented circuit diagram that displays, for an element of a system, an electrical connection of the element to other individual elements in the system, and (2) received status data for the element represented in the represented circuit diagram.

Schwenke appears to teach a data construct, referred to as a "control assembly," for controlling, for example, a specific clamp. The control assembly for the specific clamp may include specification of control mechanisms for controlling the clamp, a schematic diagram of the clamp illustrating clamp control mechanisms and electrical and hydraulic links, logic for controlling the control mechanisms used to control the specific clamp, diagnostic logic for indicating either erroneous conditions that occur or other interesting conditions or status of a process, logic for supporting a Human Machine Interface (HMI) associated with the clamp, and simulation specification for simulation purposes (see column 10, lines 31-47).

Fig. 15 of Schwenke, relied upon by the Examiner, depicts a schematic of a pneumatic system of a control environment, as described in column 112, lines 23-24. A visualization comprises entities within the control assembly that are useful to portray textually or graphically. For example, control components can be displayed as text or a graphical representation of a control component that could be utilized

(see column 112, lines 35-41). However, the information depicted in Fig. 15 does not include status data for any element of the control system, as generally recited by claim 1, and does not display an electrical connection of an element to another element in the system, as claim 1 also generally recites.

Figure 107, also relied upon by the Examiner, depicts a schematic diagram that illustrates a segment of the PLC I/O table depicted in Fig. 106. The table depicted in Fig. 106 is a code building table, which table comprises information stored in a database (see column 57, lines 22-31). Schwenke does not disclose **displaying** the table depicted in Fig. 106, much less displaying the schematic diagram illustrating a segment of the table, such as the diagram depicted in Fig. 107. It appears the Examiner once again confuses diagrammatically representing a schematic or diagram **in a figure of a patent** with representing “a control circuit diagram” to a user **as part of the claimed method**.

Further, the schematic diagram depicted in Fig. 107 represents **contacts and coils, which correspond to input/output signals of a Programmable Logic Controller (PLC)**. As outlined in column 3, lines 58-65, industrial PLCs are still programmed in Ladder Logic where instructions are represented graphically by “contacts” and “coils” of **virtual relays** connected and arranged in ladder-like rungs across power rails. For example, when the status of an input/output signal called “first clamps I1” 8046 turns from passive to active, the contact “first clamps I1” 8046 in the rung 8055 closes. Thus, even if Fig. 107 depicted a diagram actually displayed to a user, and Applicants assert that no interpretation exists in which this is true, Fig. 107 depicts a graphical representation of **Ladder Logic** (i.e., computer code) represented as schematic diagram, and not **a circuit diagram displaying an electrical connection of an element to another element in a machine control system**, as generally recited by claim 1.

Further still, Fig. 107 does not depict any **status data** for any element in the circuit diagram. Thus, even if Fig. 107 depicted a circuit diagram displaying an electrical connection of one element to other elements in a control system (which it does not), and even if Schwenke disclosed representing the diagram to a user (which it also does not), Schwenke does not disclose **representing received status**

data for an element of a control system in a represented circuit diagram, as recited by claim 1.

Moreover, Applicants find no relevance in the portions of text on which the Examiner relies in support of the alleged *prima facie* case of anticipation. For example, the Examiner relies on column 167, lines 27-46, and column 84, lines 1-50, for disclosure of “receiving status data for at least one element.” These two passages are unrelated to each other in any way that could conceivably support the Examiner’s alleged *prima facie* case of anticipation, as the former appears to provide exemplary ladder logic, and the latter describes the hardware configuration of the system. While the former passage contains the phrase “request status” and the latter passage indicates the use of object oriented programming within the hardware configuration of the system, these two passages, taken together, cannot disclose “receiving status data for at least one element,” much less doing so for ***an element of a control system, which element is represented in a circuit diagram that displays an electrical connection of the element to other individual elements of the system***, as generally recited by claim 1.

Similarly, the Examiner relies on column 153, lines 57-61, to support the alleged anticipation of “representing at least one physical state variable.” While the cited passage does disclose a state machine, the passage does not, in any way, indicate or disclose that the ***status data received for an element in a control system represent a physical state variable***, as claim 1 generally requires.

By contrast, independent claim 1 generally recites receiving status data for an element in a control system, which data represent at least one physical state variable; representing the status data received for the element; representing a circuit diagram that displays, at least for the element, an electrical connection of the element to other individual elements in the system; where the representation of the received status data occurs in the represented circuit diagram. The method, device, and system of the pending claims allows an operator to read status data directly on a diagram that represents the electrical connection of elements in a control system, so that the operator does not need to obtain the process flow data separately in a process flow sheet, and separately compare the status data with a status diagram. This advantageously avoids operating errors and renders more efficient the

maintenance and debugging of the machine control system, because the operator can obtain an immediate overview of the system status.

As the above remarks make clear, nothing cited in the Office action mailed May 12, 2008, supports a *prima facie* case of anticipation with regard to independent claim 1. Moreover, each of independent claims 21 and 23 recite elements similar to those recited in independent claim 1 and, therefore, for at least the same reasons as elaborated upon above with respect to claim 1, Schwenke cannot anticipate either claim 21 or claim 23, much less anticipate any pending dependent claim. In view of the remarks above, therefore, Applicants respectfully request reconsideration and withdrawal of the rejections.

CONCLUSION

Accordingly, all remaining claims are in condition for allowance for the reasons provided above. Although Applicants believe that no fees are due, the Commissioner is hereby authorized to charge any fees or credit any overpayments to Deposit Account No. 13-2855 of Marshall, Gerstein & Borun, LLP under Order No. 30051/41004. Should the examiner wish to discuss any remaining issue, Applicants kindly request the examiner to contact the undersigned by telephone at the number below.

Respectfully submitted,

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